BAKULEV, A.N.; STEPANYAN, Yo.P.

Relation between transaminase and bacterial antihyaluronidase in the blood serum in mitral stenosis of rheumatic origin. Grud. khir. 2 no.1:15-20 Ja-F '60.   (MIRA 15:3)

1. Iz Instituta grudnoy khirurgii (dir. - prof. A.A. Busalov, nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR akademik A.N. Bakulev) AMN SSSR. Adres avtorov: Moskva, Leninskiy prosp., d.8. Institut grudnoy khirurgii AMN SSSR.
(TRANSAMINASES)
(ANTIHYALURONIDASE)
(MITRAL VALVE—DISEASES)

STEPANYAN, Ye.P.; KOLESNIKOV, S.A.

Interrelation of heparin and tissue antihyaluronidase in the
blood serum of patients with mitral stenosis of rheumatic
etiology. Grud. khir. 2 no.1:37-43 Ja-F '60.   (MIRA 15:3)

1. Iz Instituta grudnoy khirurgii AMN SSSR (dir. - prof.
A.A. Busalov, nauchnyy rukovoditel' - akademik A.N. Bakulev).
Adres avtora: Moskva, Leninskiy prosp.,d.8, Institut grudnoy
khirurgii AMN SSR.
                        (ANTIHYALURONIDASE)
                             (HEPARIN)
                    (MITRAL VALVE—DISEASES)

BEREZOV, Yu.Ye.; STEPANYAN, Ye.P.; IAPIN, M.D.

Postoperative thrombi and thromboembolism in patients with cancer
of the cardia and esophagus. Grud. khir. 2 no.6:91-99 N-D '60.

(MIRA 14:1)

1. Iz otdeleniya zabolevaniy pishchevoda (zav. - doktor meditsinskikh
nauk Yu.Ye.Berezov) i biokhimicheskoy laboratorii (zav. - doktor
biologicheskikh nauk Ye.P.Stepanyan) Instituta grudnoy khirurgii
(dir. - prof. S.A.Kolesnikov, nauchnyy rukovoditel' - akademik
A.N. Bakulev) AMN SSSR. Adres avtorov; Moskva, Leninskiy prospekt,
d. 8, Institut grudnoy khirurgii AMN SSSR.
(ALIMENTARY CANAL—CANCER)
(EMBOLISM)   (ANTICOAGULANTS (MEDICINE))

BAKULEV, A.N., akad.; STEPANYAN, Ye.P., doktor biolog.nauk;
    MURATOVA, Kh.N., kand.med.nauk

Some biochemical changes in patients with chronic coronary in-
sufficiency and myocardial infarct before and after bilateral
ligation of the internal mammary arteries. Khirurgiia 36 no.10:
8-15 O '60.   (MIRA 13:11)

1. Iz Instituta grudnoy khirurgii (dir. - prof. S.A. Kolesnikov,
nauchnyy rukovoditel' - akad. A.N. Bakulev) AMN SSSR.
    (CORONARY HEART DISEASE) (BREAST—BLOOD SUPPLY) (BLOOD)

BAKULEV, A.N.; STEPANYAN, Ye P., doktor biol. nauk (Moskva)

Correlation between glutamine transaminase and antihyaluronidase
in the blood serum in mitral stenosis. Klin.med. 38 no.3:34-40
Mr.'60.
　　　　　　　　　　　　　　　　　　　　　　　　(MIRA 16:7)
(GLUTAMINE TRANSAMINASE) (ANTIHYALURONIDASE)
(MITRAL VALVE--DISEASES)

KALASHNIKOV, A., STEFANYAN, Ye. P.

"État de la coagulabilite sanguine et de la fibrinolyse
dans le diagnostic de thromboses et d'hemorhegies lars d'interventions
chirugicales cardiaques"

Report submitted for the fourth Intl. Congress of Angiology
Prague, Czech, 3-9 Sep 61

STEPANYAN, Ye. P.; MOSKALENKO, Yu. D.; KOSORUKOVA, N. Ya.

Prevention of thromboembolic complications in lung cancer. Grud.
khir. no.5:89-94 '61.   (MIRA 15:2)

1. Iz biokhimicheskoy laboratorii (zav. - doktor biologicheskikh
nauk Ye. P. Stepanyan) i otdeleniya zabolevaniy legkikh (zav. -
doktor meditsinskikh nauk N. I. Gerasimenko) Instituta grudnoy
khirurgii (dir. - prof. S. A. Kolesnikov, nauchnyy rukovoditel' -
akad. A. N. Bakulev) AMN SSSR. Adres avtorov: Moskva, Leninskiy
prosp., d. 8. Institut serdechno-sosudistoy khirurgii AMN SSSR.

(LUNGS—CANCER)   (EMBOLISM)

STEPANYAN, Ye. P.; SMIRENSKAYA, Ye. M.

Changes in some components of blood coagulation in patients who
have suffered massive hemorrhage of the terminal state. Grud.
khir. 4 no.1:41-48 Ja-F '62.   (MIRA 15:2)

1. Iz Instituta grudnoy khirurgii AMN SSSR (dir. - prof. S. A.
Kolesnikov; nauchnyy rukovoditel' - akad. A. N. Bakulev) Adres
avtorov: Moskva, Leninskiy prosp., d. 8. Institut serdechno-
sosudistoy khirurgii AMN SSSR.

(BLOOD—COAGULATION)   (HEMORRHAGE)
        (DEATH, APPARENT)

KOLESNIKOV, S. A., prof.; (Moskva, pr. Mira, d. 103, kv. 155;
STEPANYAN, Ye. P., doktor biol. nauk

Some blood coagulation factors in mitral defects of the heart
of rheumatic etiology. Vest. khir. no.2:3-6 '62.
(MIRA 15:2)

1. Iz Instituta grudnoy khirurgii AMN SSSR (dir. - prof. S. A.
Kolesnikov, nauchnyy rukovod. - akad. A. N. Bakulev)

(MITRAL VALVE—DISEASES)   (BLOOD—COAGULATION)
(RHEUMATIC HEART DISEASE)

STEPANYAN, Ye. P., prof.; PRIVALENKO, M. N.; PETROSYAN, M. V.

Simultaneous determination of three streptococcal antibodies —
antistreptokinase, bacterial antihyaluronidase and antistrepto-
lysin-0 — in the blood serum in acquired heart defects. Khirurgiia
no.2:13-18 '62.   (MIRA 15:2)

1. Iz Instituta serdechno-sosudistoy khirurgii (dir. - prof.
S. A. Kolesnikov, nauchnyy rukovoditel' - akad. A. N. Bakulev)
AMN SSSR.

          (RHEUMATIC HEART DISEASE)   (ANTISTREPTOLYSINS)
          (ANTIHYALURONIDASE)   (ANTISTREPTOKINASE)

SMOL'NIKOV, V. P.; STEPANYAN, Ye. P.; KUPRIYANOV, S. S.; KRAMARENKO, L. Ye.

Inversion of the symptomatology in curarization. Eksper. khir. i
anest. no.2:62-66 '62.   (MIRA 15:6)

1. Iz laboratorii anesteziologii (zav. - kandidat meditsinskikh
nauk V. P. Smol'nikov) i laboratorii biokhimii (zav. - doktor
biologicheskikh nauk Ye. P. Stepanyan) Instituta grudnoy khirurgii
(dir. - prof. S. A. Kolesnikov, nauchnyy rukovoditel' - akad.
A. N. Bakulev) AMN SSSR.

(MUSCLE RELAXANTS)

KOLESNIKOV, S.A.; STEPANYAN, Ye.P.

State of blood coagulation and fibrinolysis in the diagnosis of
thrombosis and hemorrhages in surgical interventions on the heart.
Grud.khir. no.4:39-43 Jl-Ag '62.   (MIRA 15:10)

1. Iz Instituta serdechno-sosudistoy khirurgii (dir. - prof. S.A.
Kolesnikov, nauchnyy rukovoditel' - akad. A.N.Bakulev) AMN SSSR.
Adres avtorov: Moskva, B-49, Leninskiy prosp., d. 8. Institut
serdechno-sosudistoy khirurgii AMN SSSR.
                        (HEART—SURGERY)
                        (THROMBOSIS)
                        (HEMORRHAGE)
                        (FIBRINOLYSIS)
                    (BLOOD COAGULATION)

KOLESNIKOV, S. A., prof.; STEPANYAN, Ye. P.; SMIRENSKAYA, Ye. M.

Increased hemorrhagic diathesis after operations performed under artificial blood circulation. Probl. gemat. i perel. krovi no.8: 40-45 '62.   (MIRA 15:7)

1. Iz laboratorii biokhimii (zav. - prof. Ye. P. Stepanyan), klinicheskoy fiziologii (zav. - prof. A. G. Bukhtiyarov) Instituta serdechno-sosudistoy khirurgii (dir. - prof. S. A. Kolesnikov, nauchnyy rukovoditel' - akad. A. N. Bakulev) AMN SSSR.

(HEMOPHILIA)   (BLOOD—CIRCULATION, ARTIFICIAL)

STEPANYAN, Ye. P., prof.; MERKUR'YEVA, R.V.

Electrophoretic and chromatographic analysis of glycoporoteins
in the blood serum of patients with defect of the mitral valve.
Terap. arkh. 34 no.10:84-89   0'62   (MIRA 17:4)

1. Iz biokhimicheksoy laboratorii (zav. - prof. Ye.P. Stepan-
yan) Instituta serdechno-sosudistoy khirurgii (dir. - prof.
S.A. Kolesnikov) AMN SSSR; nauchnyy rukovoditel' - akademik
A.N. Bakulev.

S/020/62/147/005/032/032
B144/B186

AUTHORS: Stepanyan, Ye. P., Merkur'yeva, R. V., Geselevich, Ye. L.

TITLE: Experimental study of metabolic acidosis in deep hypothermia

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 5, 1962, 1250-1252

TEXT: Since narcosis with hypothermia produces often metabolic acidosis, it was important to clear up the role of hypothermia in itself. This was done by determining in heart, brain, skeletal muscles and suprarenal glands of narcotized dogs (temperature in the mediastinum $10^{\circ}C$) the contents of lactic, pyruvic and ascorbinic acids, the glycolysis, the content of protein and its fractions, the blood viscosity, the electrolytes, the pH, and the blood sugar. The tests were conducted in 3 groups: blood circulation interrupted for 30 min (I); for 60 min (II); for 30 min followed by warming to $37^{\circ}C$ (III). Results: (I) The lactic acid content dropped in heart and suprarenal glands and increased in brain and muscle. Glycolysis changed in the same sense with exception of the muscle. (II) Marked increase of lactic acid content and glycolysis in heart and brain. (III) Maxima of both levels in the brain. In the

Card 1/2

STEPANYAN, Ye.P., prof.; MERKUR'YEVA, R.V., mladshiy nauchnyy sotrudnik

Significance of determining glucoproteins, mucoproteins,
glucosamine and diphenylamine re······· ·· the blood serum
of patients with mitral heart defect. Kardiologiia 5 no.2:
43-48 '63   (MIRA 17:2)

1. Iz biokhimicheskoy laboratorii (zav. - prof. Ye.P.Stepanyan)
Instituta grudnoy khirurgii AMN SSSR (dir. - prof. S.A.
k. ········, ·······-·· rukovoditel' - akademik A.N.Bakulev).

HORVATH, Yu.S.; GALLIVICH, I.A.,

Some biochemical changes in the blood during artificial blood circulation. Vest. AMN SSSR 18 no.2.41-46 '63.

(MIRA 17:7)

1. Institut serdechno-sosudistoy khirurgii AMN SSSR.

STEPANYAN, Ye. P.

AID Nr. 976-1   24 May

TISSUE RESPIRATION AND ADENOSINETRIPHOSPHATASE ACTIVITY IN
DOGS IN DEEP HYPOTHERMIA (USSR)

A study was made on the effects of deep hypothermia on the tissue respira-
tion and adenosinetriphosphatase activity in the brain, heart, adrenals, and
skeletal muscles of mongrel dogs. Extracorporeal cooling to 10°C in the
mediastinum and subsequent warming of the hypothermic animals by means
of an apparatus filled with blood at 0°C and 37°C,respectively, was completed
in 10 to 15 min. Three series of experiments were conducted. The blood cir-
culation was arrested for 30 min in series (I) and for 60 min in series (II)
in series (III) the animals were rewarmed to normal temperature after a
30-min circulatory arrest. Deep hypothermia caused marked changes in the
tissue respiration, particularly in the brain tissue, manifested by diminished
consumption of oxygen (17% of the normal) and reduced excretion of carbon
dioxide (12. 5% of the normal); profound disturbances in the decarboxylation

Card 1/2

AID Nr. 976-1   24 May

TISSUE RESPIRATION [Cont'd]   S/219/63/055/003/001/C01

processes were noted. The activity of adenosinetriphosphatase in all tissues, particularly in the brain tissue, was reduced by deep cooling. Changes in tissue respiration were almost identical in series I and II. Enzyme activity in the cardiac and skeletal muscles was affected by the length of the circulatory arrest (it was more inhibited by the 60-min arrest in series II). The changes in the enzyme activity in the brain tissue were almost identical in series I and II. Rewarming of the hypothermic animals and incubation of the cooled tissues at 37°C increased the tissue respiration and adenosinetriphosphatase activity in all tissues. The data obtained show that changes induced by deep hypothermia are reversible.

[SGM]

Card 2/2

STEPANYAN, Ye.P.; BUKHARIN, V.A.; CHERNYAVSKAYA, M.A.

Investigation of catechol amines in various organs of dogs under
conditions of deep hypothermia. Biul. eksp. biol. i med. 56 no.9:
56-61 S '63.   (MIRA 17:10)

1. Iz biokhimicheskoy laboratorii (zav. - prof. Ye.P. Stepanyan) i
otdeleniya vrozhdennykh porokov (zav. V.I. Burakovskiy) Instituta
serdechno-sosudistoy khirurgii (dir. - prof. S.A. Kolesnikov, nauch-
nyy rukovoditel' - akademik A.I. Bakulev) AMN SSSR. Predstavlena
deystvitel'nym chlenom AMN SSSR A.I. Bakulevym.

L 8769-65   EWG(j)/EWG(r)/EWT(1)/FS(v)-3/EWG(v)/EWG(a)/EWG(o)   Pe-5   AFFTC(b)/
AMD   DD

ACCESSION NR: AP4007549   S/0020/63/153/006/1458/1460

AUTHOR: Stepanyan, Ye. P.; Chernyavskaya, M. A.

TITLE: Ascorbic acid and catechol amines in experimental deep hypothermia

TOPIC TAGS: ascorbic acid, catechol amine , deep hypothermia, tissue ascorbic acid content, tissue catechol amine content, deep hypothermia effect, hypothermia, pyrocatechol. amine derivative , adrenaline, body temperature.

ABSTRACT: Despite considerable progress in deep hypothermia during surgery, the influence of hypothermia on metabolic processes has been but scantily studied and the data are contradictory. Since the functional state of the adrenal glands can be evaluated by the presence of ascorbic acid (AA) and catechol amines, experimental work in this direction was undertaken under the direction of Prof. S. A. Kolesnikov. Surgical work was done by V. I. Burakovskiy and V. A. Bukharin with G. A. Ryabov acting as anesthetist. Dogs used for the

Card 1/3

L 8769-65
ACCESSION NR: AP4007549   /

tests were cooled to +10C in the mediastinum by means of artificial blood
circulation.   The latter was stopped for various periods of time (30-60 min),
whereupon the temperature was raised to 37C. It was found that after 30 min
stoppage of blood circulation, AA content decreased in all tissues and increases
in the blood. Most marked is its drop in the adrenal glands. After 60 min the
drop is less pronounced, probably due to adaptation; in the adrenal glands the
AA content increased to as high as 148. 25 mg-% (normal 108. 6 mg-%) and
drops in the blood. With rising temperature the AA content increases above
its initial levels.   15 min after stoppage of blood circulation, a decrease of AA
and catechol amines in blood is observed. The assumption is made that AA
somehow participates in the hormone synthesis of both cortical and medulla of
the adrenal gland. Normalization of indices inthe body after cooling shows the
changes during deep hypothermia to be temporary, reversible processes.
Orig. art. has: 2 figures.

ASSOCIATION: Institut serdechno-sosudistoy khirurgii Akad. Med. Nauk SSSR
(Institute of Cardiovascular Surgery of the USSR Academy of Medical Sciences)

Card 2/3

L 8769-65
ACCESSION NR: AP4007549   0

SUBMITTED: 11May63   ENCL: 00

SUB CODE: LS   NO REF SOV: 009   OTHER: 009

Card 3/3

STEPANYAN, Ye. P.; TAMARKINA, E.D.; POSPELOVA, Ye.P.

Significance of determining creatine phosphokinase for the
ear'y diagnosis of myocardial infarct. Kardiologiia 4 no.4:
27. 30 Jl-Ag ' 64   (MIRA 19:1)

1. Biokhimicheskaya laboratoriya (zav. - prof. Ye.P. Stepanyan)
i sosudistoye otdeleniye (zav. - prof. Yu. Ye. Berezov) In-
stituta serdechno-sosudistoy khirurgii (direktor - prof.
S.A. Kolesnikov; nauchnvy rukovoditel' - akademik A.N. Bakulev)
AMN SSSR, Moskva. Submitted August 15, 1963.

BRODKIN, Yu.Ye.; STROBYKIN, Yu.I.; LAKIN, M.D.

Effect of the rheumatic processes and anticoagulation therapy
on the protein fractions of the blood serum in cancer of the
cardiac region of the stomach and esophagus. Vhir.ekeppi klin.med.
4 no.5:48-52 '64.   (MIRA 18:12)

1. Institut grudnoy khirurgii AMN SSSR.

BURAK RAY, A.A.; KHRANYAN, V.R.; CLISHICHERVA, A.B.

Effect of artificial blood circulation during moderate hypothermia on the factors of the blood coagulation and anticoagulation systems in patients with acquired heart defects. Grud. khir. 6 no.4:16-20 N-D '64. (MIRA 18:7)

1. Institut serdechno-sosudistoy khirurgii (direktor - prof. S.A. Kolesnikov; nauchnyy rukovoditel' - akademik A.N. Bakulev) AMN SSSR, Moskva. Adres avtorov: Moskva V-49, Leninskiy prosp. d.8, Institut serdechno-sosudistoy khirurgii.

L 39433-65
ACCESSION NR: AP5007668   S/0020/65/160/006/1434/1436 /2

AUTHOR: Stepanyan, Ye. P.; Geselevich, Ye. L.; Pospelova, Ye. P.; B
Bakulev, A. N.

TITLE: Investigation of oxidative phosphorylation in heart muscle
under artificial blood circulation conditions

SOURCE: AN SSSR. Doklady, v. 160, no. 6, 1965, 1434-1436

TOPIC TAGS: dog, oxidative phosphorylation, heart, muscle,
heart stoppage, induced hypothermia, artificial blood circulation,
oxygen intake, adenosine triphosphate

ABSTRACT: Oxidative phosphorylation changes were investigated in
heart muscle of dogs after prolonged stoppage of the heart in two
experimental series. In both series, experimental animals were
anesthetized and stoppage of the heart and coronary perfusion of 60
min duration were conducted under artificial blood circulation. The
first series was staged under moderate hypothermic conditions with
heart stoppage induced by cold, and the second series was staged
under normal temperature conditions with heart stoppage induced

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ACCESSION NR: AP5007668

electrically. Control animals in the first group were killed
immediately after anesthesia, and control animals in the second group
were killed after 1 hr of anesthetization combined with a thoracotomy
and cannulation. Oxidative phosphorylation was determined in heart
muscle tissue before and after incubation. Oxygen intake was
measured by Warburg's manometric method. The incubation mixture
consisted of a potassium-phosphate buffer 1/15 M, MgCl2 0.01 M, and
succinate 0.04 M. The phosphate acceptor system consisted of
adenosine triphosphate 0.01 M, glucose 0.01 M, and hexokinase 2 mg
for an incubation mixture of 2 ml and a tissue suspension of 400 mg.
Incubation time was 20 min. Oxygen intake, inorganic phosphorus
level, and the phosphorus-oxygen ratio served as indices. Adenosine
triphosphatase activity in the tissue and adenosine triphosphate in
the blood were also determined. Findings show that oxidative phos-
phorylation in heart muscle, after prolonged stoppage of the heart
and with artificial blood circulation, is reduced under conditions
of moderate hypothermia and normal temperature. No correlation was
found between decrease in oxygen intake and phosphorylation as
observed in the control groups. Adenosine triphosphatase activity
was also significantly reduced, with the reduction higher under

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L 39433-65
ACCESSION NR: AP5007668

conditions of moderate hypothermia than under normal temperature.
Results indicate that despite coronary perfusion, prolonged stoppage
of the heart with artificial blood circulation leads to significant
changes of energy exchange processes in the heart muscle and this may
contribute to malfunctioning of myocardium contraction. Orig. art.
has: 2 figures.

ASSOCIATION: Institut serdechno-sosudistoy khirurgii Akademii
meditsinskikh nauk SSSR (Institute of Cardiovascular Surgery of the
Academy of Medical Sciences SSSR)

SUBMITTED: 05Jun64   ENCL: 00   SUB CODE: LS

NR REF SOV: 007   OTHER: 005

Card 3/3

STEPANYAN, Ye.P.; LYSENKO, V.B.; GRIGOR'YAN, D.G.

Study of carbohydrate components of mucopolysaccharides in
the aorta wall in the process of atherosclerosis develop-
ment. Dokl. AN SSSR 161 no.1:251-252 Mr '65.

(MIRA 18:3)

1. Institut serdechno-sosudistoy khirurgii AMN SSSR. Submitted
June 9, 1964.

STEFANYAN, Ye.P.; BARKAN, I.N.

Polarographic study of the respiration and phosphorylation in
mitochondria of the myocardium under the effect of ether
narcosis and lystenone. Dokl. AN SSSR 165 no.2:457-460 N '65.
(MIRA 18:11)

1. Institut serdechno-sosudistoy khirurgii AMN SSSR. Submitted
December 30, 1964.

DZHAFAROV, G.M., kand.tekhn.nauk; SDEKOV, Ye.I., kand.tekhn.nauk; STEPANYAN, Ye.S., inzh.; AKUNDOV, G.M., inzh.

Porous ceramic tiles for the drainage of saline soils. Gidr. i mel. 13 no.1:32-39 Ja '61. (MIRA 14:2)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii.

(Azerbaijan--Draintiles)

STEPANYAN, Z.A.

"The Growing Role of People in the Social Development of Socialism."

Report presented at the 5th World Congress of Sociology, Washington, D.C., 2-8 Sep 62.

STEPANYAN, Z.A.

"Transition of Underdeveloped Republics of the U.S.S.R. from
Feudalism to Capitalism."

Report presented at the 5th World Congress of Sociology, Washington,
D.C., 2-8 Sep 62.

ITELNYAT-PALANOVA, A. M.

36976.   Ifektsionnyye Porazheniya Spinnogo Mozga i Obolochek Pri Ognestrel'nikh Travmaticheskikh Raneniyakh Pozvonochnika. V SB: Nevrologiya Voyen Vremeni. T. II. M., 1949, c. 314-21.

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

STELANYAN-TARAKANOVA, A.

36916. BELOUSOV, V., STELANYAN-TARAKANOVA, A. i MAKAROV, Ye. Opyt lecheniya prolezhney
i ran pantokrinom. V. sb: Nevrologiya voyen. Vremeni. t. II. M., 1949, s. 326-26.

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

STEPANYAN-TARAKANOVA, A. M.

STEPANYAN-TARAKANOVA, A. M. - "Traumatic Disorders of the Spinal Cord."
Sub 28 Nov 52, Acad Med Sci USSR. (Dissertation for the Degree
of Doctor in Medical Sciences).

SO: Vechernaya Moskva January-December 19,2

STEPAN'YAN-TARAKANOVA, A. M.

"Consideration of the Problem of Nutrition at the Eight Session of the Academy of Medical Sciences USSR", Voprosy Pitaniya, Vol XIII, No 2, 1954, pp 57-59

Trans

M-124, 24 Jan 55

STEPANYAN-TARAKANOVA, A.M.

Eighth Scientific Session of the Institute of Nutrition of the
Academy of Medical Sciences of the U.S.S.R. Vop.pit. 13 no.3:52-63
My-Je '54.   (MLRA 7:5)

                              (Nutrition)

STEPANYAN-TARAKANOVA, A.M., doktor meditsinskikh nauk

Recent progress in the field of nutrition. Vest. AMN SSSR no.3: 75-79 '55.   (MLRA 8:11)

1. Iz instituta pitaniya (dir.--chlen-korrespondent AMN SSSR prof. O.P.Molchanova) AMN SSSR
    (NUTRITION,
        in Russia)

USSR/Medicine - Nutrition   FD-3303

Card 1/1   Pub. 141 - 18/19

Author   : (Reported by Stepanyan-Tarakanova, A. M.)

Title   : IX Scientific session of the institute of nutrition, acad of medical
               sciences, USSR
                      H no. 4
Periodical : Vop. pit.; 49-60, Jul/Aug 1955

Abstract   : The above session was held from 28 January to 3 February 1955. Over
               500 scientific workers from Moscow, Leningrad, Kiev, Minsk, the far
               east, and the various soviet republics attended. A representative of
               Korean medical science (Professor Tsoy Yn-Sek) was also present. Many
               papers were presented on various subjects of nutrition. Great emphasis
               was placed on studying the effect of qualitatively varying nutrition on
               the conditioned reflex activity of animals, on metabolism, and on the func-
               tional status of organs in the system. No references.

Institution :

Submitted   :

STEPANYAN-TARAKANOVA, A.M.; TARAKANOV,Ye.I.; KARPMAN, V.L., redaktor;
BREZANOVSKAYA, L.Ya., redaktor; YUSFINA, N.L., tekhnicheskiy
redaktor.

[Metabolism and nutrition] Obmen veshchestv i pitanie. Moskva,
Gos. izd-vo kul'turno-prosvetitel'noi lit-ry, 1956. 44 p.(Bi-
bliotechka v pomoshch' lektoru, no.6)   (MIRA 9:6)
          (METABOLISM) (NUTRITION)

STEPANYAN-TARAKANOVA, A.M., doktor med.nauk

Current problems in nutrition; results of the tenth session of
the Institute of Nutrition of the Academy of Medicine of the
U.S.S.R. Vest.AMN SSSR 11 no.4:66-74 '56.   (MIRA 12:10)
(NUTRITION)

MAKARYCHEV, A.I., TONGUR, V.S.; STEPANYAN-TARAKANOVA, A.M.; BRAKSH, T.A.;
CHUDINOVSKIKH, A.V.

Study of the physiological effect of low calory diets containing a
minimum amount of proteins and a normal amount of vitamins and salts.
Voppit. 15 no.4:18-22 Jl-Ag '56.   (MIRA 9:9)

1. Iz Instituta pitaniya AMN SSSR, Moskva.
        (DIETS, exper.
            minimal calories & normal content of salts & vitamins,
            eff. on man under normal work load)
        (VITAMINS, eff.
            normal content in diets with minimal calories & normal
            content of salts, eff. on man under normal work load)
        (SALTS, eff.
            normal content in diets with minimal calories & normal
            content of vitamins, eff. on man under normal work load)

STEPANYAN-TARAKANOVA, A.M., doktor meditsinskikh nauk

Measures for improving nutrition of the population of the Soviet Union. Vest. AMN SSSR 12 no.3:79-86 '57.   (MLRA 10:8)

1. Institut pitaniya AMN SSSR
        (NUTRITION)

STEPANYAN-TARAKANOVA, A.M., doktor med.nauk, GOLUBEVA, L.Ya., kand.biol.nauk
     ZIKEYEVA, V.K., (Moskva)

Role of the nervous system in the pathogenesis of various forms of
obesity and the changes produced by medical diet. [with summary
in English]. Probl.endok. i gorm. 4 no.4:52-64 Jl-Ag '58
                                             (MIRA 11:10)

1. Iz otdeleniya bolezney obmena veshchestv (zav. - prof.
M.N. Yegorov) kliniki lechebnogo pitaniya (zav. - prof. F.K. Men'shikov)
i laboratorii vysshey nervnoy deyatel'nosti (zav. - prof. A.I.
Makarychev) Instituta pitaniya AMN SSSR (dir. - chlen-korrespondent
AMN prof. O.P. Molchanova).
          (OBESITY, etiol. & pathogen.
               NS disord., speical diet ther. (Rus))
          (NERVOUS SYSTEM, dis.
               in obesity, speical diet. ther. (Rus))
          (DIETS, in various dis.
               obesity caused by NS disord. (Rus))

STEPANYAN-TARAKANOVA, A.M., doktor med.nauk

Further development of the nutrition problem in the U.S.S.R.
and the people's democracies. Vest.AMN SSSR 13 no.6:60-70 '58
(MIRA 11:7)

(NUTRITION
        in Russia & satellites, review (Rus))

STEPANYAN-TARAKANOVA, A.M.(Moskva)

Neuro-endocrine forms of adiposis and the role of nutrition [with
summary in English]. Vopr.pit. 17 no.1:32-38 Ja-F '58. (MIRA 11:4)

1. Iz Instituta pitaniya AMN SSSR, Moskva.
        (OBESITY, etiol. & pathogen.
            brain & endocrine dis., dietetic ther. (Rus))
        (DIETS, in var. dis.
            obesity caused by brain & endocrine dis. (Rus))
        (BRAIN, diseases,
            causing obesity, dietetic ther. (Rus))
        (ENDOCRINE DISEASES, complications
            obesity, dietetic ther. (Rus))

STEPANYAN-TARAKANOVA, A.M.

Conference of the Institute of Nutrition of the Academy of Medical
Sciences of the U.S.S.R. devoted to the 40th anniversary of the
Great October Socialist Revolution. Vop.pit. 17 no.2:85-87 Mr-Ap '58.
            (NUTRITION)   (MIRA 11:4)

STEPANYAN-TARAKANOVA, A.M.

Twelfth session of the Institute of Nutrition of the Academy of
Medical Sciences of the U.S.S.R. Vop.pit. 17 no.4:91-96 Je-Ag'58
(MIRA 11:7)

(NUTRITION)

STEPANYAN-TARAKANOVA, A.M., doktor med.nauk

Current problems in nutrition. Vest. AMN SSSR 14 no.9:85-94 '59.

(MIRA 13:1)

(NUTRITION)

STEPANYAN-TARAKANOVA, A.M.; GOLUBEVA, L.Ya.; ZIKEYEVA, V.K.; KURTSIN', O.Ya.
TIKHOMIROVA, A.N.; MASLENIKOVA, Ye.M.; SOROKIN, G.Ye.;
ZAKHARYCHEVA, A.A.

Effect of combined therapy on patients with the cerebroendocrine
form of obesity. Vop. pit. 18 no. 6:16-24 N-D '59. (MIRA 14:2)

1. Iz Instituta pitaniya AMN SSSR, Moskva.
      (CORPULENCE) (GLUTAMATES) (CORTISONE)

SPITSYAN, A.; STEPAN'YANTS, A.

Electronic musical instrument. Radio no.3:44-47 Mr '63.

(MIRA 16:2)

(Musical instruments, Electronic)

STEPANYANTS, A. K.   Dr. Tech. Sci.

Dissertation: "Theory and Practice of Opening Petloleum Beds." Moscow Order of the Labor Red Banner Petroleum Inst., imeni Academician I. M. Gubkin, 17 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

SERDIY, A.G., redaktor; STEPANYANTS, A.K., professor, redaktor; TIKHO-
MIROV, A.A., kandidat ekonomicheskikh nauk, redaktor; VINOGRADOV,
V.N., redaktor; CHERNOZHUKOV, N.I., professor, redaktor; SHCHEL -
KACHEV, V.N., professor, redaktor; CHARYGIN, M.M., professor,
redaktor; DUNAYEV, F.F., professor, redaktor; KUZMAK, Ye.M.,
professor, redaktor; MURAV'YEV, I.M. professor, redaktor;
GUREVICH, V.M., redaktor; MURATOVA, V.M., redaktor, POLOSINA,
A.S., tekhnicheskiy redaktor.

[Sixth scientific and technical conference, 1951] Shestaia
nauchno-tekhnicheskaia konferentsiia, 1951. Moskva, Gos.nauchno
tekhn.izd-vo neftianoi i gorno-toplivnoi lit-ry, 1952, 214 p.
                                              (MLRA 8:10)

1. Moscow. Moskovskiy neftianoy institut. Nauchnoye studencheskoye
obshchestvo.
        (Petroleum geology)

SERDIY, A.G., redaktor; TIKHOMIROV, A.A., kandidat ekonomicheskikh nauk,
    redaktor; STEPANYANTS, A.K., professor, redaktor; VINOGRADOV, V.N.
    redaktor; CHERNOZHUKOV, N.I., professor, redaktor; SHCHELKACHEV
    V.N., professor, redaktor; CHARYGIN, M.M. professor, redaktor;
    KUZMAK, Ye.M., professor, redaktor; MURAV'YEV, I.M. professor,
    redaktor; GUREVICH, V.M., redaktor; MURATOVA, V.M., redaktor;
    TROFIMOV, A.V., tekhnicheskiy redaktor.

[Seventh scientific and technical conference, 1952] Sed'maia
nauchno-tekhnicheskaia konferentsiia, 1952. Moskva, Gos.nauchno
tekhn.izd-vo neftianoi i gorno-toplivnoi lit-ry, 1953. 171 p.
                                        (MLRA 8:10)

1. Moscow. Moskovskiy neftianoy institut. Nauchnoye studencheskoye
obshchestvo.
        (Petroleum Geology)

ZHIGACH, K.F., professor, redaktor; STEPANYANTS, A.K., professor, redaktor; TIKHOMIROV, A.A., kandidat ekonomicheskikh nauk, redaktor; KARAPETYAN, R.O., kandidat filosoficheskikh nauk, redaktor; CHERNOZHUKOV, N.I., professor; YERSHOV, P.R., redaktor; GUREVICH, V.M., redaktor; MURAV'YEV, I.M., professor, redaktor; SHCHELKA-CHEV, V.N., professor, redaktor; CHARYGIN, M.M., professor, redaktor; DUNAYEV, F.F., professor, redaktor; KUZMAK, Ye.M., professor, redaktor; POLOSINA, A.S., tekhnicheskiy redaktor.

[Ninth scientific and technological conference of 1954]Devia-taia nauchno-tekhnicheskaia konferentsiia 1954. g. Moskva, Gos. nauchno-tekhn.izd-vo neftianoi i gorno-toplivnoi lit-ry. 1955. 205 p. [Microfilm]   (MLRA 8:9)

1. Moscow. Moskovskiy neftianoy institut. Nauchnoye studencheskoye obshchestvo.
        (Geology)   (Petroleum)

5(4)
AUTHORS   Utyanskaya E. Z.   Stepanyants A. U   SOV/20-124-5-38/62
               Vinnik M. I. Chirkov K. Zh.

TITLE: The Calculation of the Function of Acidity and the Molecular
               Composition of Hydrofluoric Acid From the Data of the Nuclear
               Magnetic Resonance of F^{19} (Raschet funktsii kislotnosti i
               molekulyarnogo sostava plavikovoy kisloty po dannym yadernogo
               magnitnogo rezonansa F^{19})

PERIODICAL   Doklady Akademii nauk SSSR 1959. Vol 124. Nr 5 pp 1095 1098
               (USSR)

ABSTRACT.   Hammett's function of acidity is measured by means of the indi-
               cator method and amounts to $\mathcal{H}_o = \lg a_{H^+}(f_B/f_{BH^+})$. Here f_B
               and f_{BH^+} denote the coefficients of the activities of the
               ionized and not ionized forms of the indicator; a_{H^+} - the proton
               activity in the given medium. In the aqueous solutions of HF
               there are the following kinds of equilibrium. $HF \rightleftharpoons H^+ + F^-$ (2);
               $HF + F^- \rightleftharpoons HF_2^-$ (3); $K_1 = a_{H^+}a_{F^-}/a_{HF}$ (4); $K_2 = a_{HF_2^-}/a_{HF}a_{F^-}$ (5).

Card 1/3

The Calculation of the Function of Acidity and the   SOV/20-124-5-38/62
Molecular Composition of Hydrofluoric Acid From the Data of the Nuclear

Magnetic Resonance of F^{19}

Here $K_1 = 6.89 \cdot 10^{-4}$ and $K_2 = 2.695$ denote the constants
of equilibrium expressed in activities. From the dissociation
equation (4) of hydrofluoric acid there follows.
$\lg a_{H^+} = -\lg K_1 - \lg (a_F/a_{HF})$. If the quantities K_1, a_{HF},
and m_F are known it is possible to calculate the acidity
function $\mathcal{H}$. For the purpose of determining quantitative re-
sults concerning the composition and the acidity of concen-
trated aqueous solutions of HF the authors carried out
measurements of the chemical shifts of the resonance of F^{19}
in aqueous solutions of hydrofluoric acid of different concen-
trations. For the chemical shift to be observed and also for
a system consisting of several interacting components expres-
sions are written down. The chemical shift to be observed is
of the order of magnitude $(5.95$ to $6.05) \cdot 10^{-4}$ for the
various concentrations of hydrofluoric acid. In order therefore
to be able to determine the acidity function with an accuracy

Card 2/3

The   Calculation of the Function of Acidity and the   SOV/20 124-5-39/62
Molecular Composition of Hydrofluoric Acid From the Data of the Nuclear
Magnetic Resonance of F^{19}

of +0.05, it is necessary to know the observable chemical
shift with an accuracy of +0.03 10^{-4}. Measurements were carried
out in a magnetic field of ~8 300 oersted. In the course of
these measurements a saw-tooth modulation of the magnetic main
field was used. The results obtained by measurements are shown
by a table and by a diagram. At concentrations of up to 30 %
the variations of the chemical shift are within the limits of
measuring errors. The results obtained by calculating molecular
composition and the acidity function are shown by tables and
diagrams. There are 4 figures 2 tables and 9 references,
5 of which are Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute
                of Chemical Physics of the Academy of Sciences USSR)

PRESENTED: October 29 1958. by V N. Kondrat'yev. Academician

SUBMITTED.   October 22 1958

Card 3/3

9.6000 (1163 only)

5.5800 (1043, 1273, 1282)

20700
S/120/61/000/001/038/062
E032/E114

AUTHORS: Bystrov, V.F., Dekabrun, L.L., Kil'yanov, Yu.N.,
Stepanyants, A.U., and Utyanskaya, E Z.

TITLE: A High-Resolution Nuclear Magnetic Resonance Apparatus

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.1, pp.122-125

TEXT: The resolution of NMR spectrometers is determined
by the following factors: (a) uniformity of the constant magnetic
field over the volume of the specimen; (b) stability of the
constant magnetic field in time; and (c) frequency stability of
the radio-frequency magnetic field. In the NMR spectrometer
described in the present paper a resolution of 10^{-7} was achieved,
which means that all the above factors remain constant to within
1 in 10^7. The apparatus has been used to record spectra of
substances containing hydrogen and fluorene luclei. Chemical
shifts and the spin-spin interaction constant can be measured to
an accuracy of better than 10%. The spectrometer incorporates a
specially designed permanent magnet producing a field of 4530 oe.
The magnet has the following features: (a) closed yoke,
ensuring maximum rigidity; (b) fine and continuous adjustment of

Card 1/5

20700
S/120/61/000/001/038/062
E032/E114

A High-Resolution Nuclear Magnetic Resonance Apparatus

the parallelism of the working surfaces of the pole-pieces;
(c) special coils are located on the poles and are used to
modulate and adjust the field; (d) the gap length is 3.2 cm and
the diameter of the working surface of the pole-pieces is 22 cm.
In order to achieve a highly uniform magnetic field the pole
pieces have a thickness of 6 cm and are specially annealed in a
hydrogen atmosphere. The working surfaces are plane to within
$\pm$ 0.5 μ.   The relative nonuniformity of the magnetic field in the
central region does not exceed 2×10^{-6} over a volume of 1 cm^3.
Fig.2 shows the magnetic field chart in the central part of the
gap.   The probe is illustrated in Fig.3.   The substance under
investigation is placed in the thin-walled glass ampoule 3   which
is rotated at a rate of 10 000 rpm by a small air turbine.   The
ampoule is held in position by the perspex rotor 2 of the
turbine. The lower end of the ampoule is centred by a teflon bush
6 and rests on the perspex plate 7. The body of the probe 5
is made from red copper. The coil is wound on the perspex former
4.   The oscillator is quartz stabilized and works on the 3rd
Card 2/3

20700

S/120/61/000/001/038/062
E032/E114

A High-Resolution Nuclear Magnetic Resonance Apparatus

harmonic of the mechanical oscillations of the quartz resonator.
Detailed circuits of the quartz oscillator and various amplifiers
etc. are given.   Fig.5 shows a typical spectrum obtained for
ethyl alcohol.   The volume of the specimen was 4 mm^3 and the time
taken to record the spectrum was 50 sec.   In general, the volume
of the specimen lies between 4 and 15 mm^3.   Acknowledgements are
expressed to K.V. Vladimirskiy for valuable advice.
There are 5 figures and 8 references: 1 Soviet and 7 non-Soviet.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR
             (Institute of Chemical Physics, AS USSR)

SUBMITTED: February 2, 1960

Card 3/8
   3

AFANAS'YEV, V.A.; BYSTROV, V.F.; DEKABRUN, L.L.; KUL'YANOV, Yu.N.;
      STEPANYANTS, A.U.

      Multipurpose spectrometer of nuclear magnetic resonance.
      Zav.lab. 28 no.1:102-103 '62.   (MIRA 15:2)

      1. Institut khimicheskoy fiziki AN SSSR.
                      (Spectrometer)

BYSTROV, V.F.; YAGUPOL'SKIY, L.M.; STEPANYANTS, A.U.; FIALKOV, Yu.A.

σ-Constants of substituents with a trifluoromethyl group.
Dokl. AN SSSR 153 no.6:1321-1324 D '63.   (MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademi-
kom V.N. Kondrat'yevym.

YAGUPOL'SKIY, L.M.; BYSTROV, V.F.; STEPANYANTS, A.U.; FIALKOV, Y.A.

PYSTROV, T.P.; SHUKANYANTS, A.U.; MIRONOV, V.A.

Structure of chemical compounds studied by means of nuclear
rumetic resonance spectra. Part 4:Adducts of substituted
cyclopentadienes with maleic anhydride and their derivatives.
Zhur. ob khim. 34 no.12:4039-4046 D '64   (MIRA 18:1)

1. Institut khimicheskoy fiziki AN SSSR i Institut organicheskoy
khimii AN SSSR.

BYSTROV, V.F.; NEYMYSHEVA, A.A.; STEPANYANTS,A.U.; KNUNYANTS, I.L.,
akademik

Additive relations for chemical shifts in magnetic resonance
spectra on F nuclei of fluophosphates and fluophosphonates.
Dokl. AN SSSR 156 no. 3:637-640 '64.   (MIRA 17:5)

1. Minstitut khimicheskoy fiziki AN SSSR i Voyennaya akademiya
khimicheskoy zashchity.

ORDA, V.V.; YAGUPOL'SKIY, L.M. [IAhupol's'kyi, L.M.]; BYSTROV, V.F.;
STEPANYANTS A.U.

Transmission of the induction effect of $SCF_3 - SCCF_3$ and
SO_2CF_3 substituents through the methylene group. Dop. AN
URSR no.3:345-348 '65.   (MIRA 18:3)

1. Institut organicheskoy khi-ii AN UrSSR.

BYSTROV, V.F.; STEPANYANTS, A.U.; MIRONOV, V.A.

Structure of chemical compounds as determined by nuclear magnetic
resonance spectra. Part 17: Structure of some derivatives of
bicyclo (2,2,1) heptane. Zhur.org.khim. 1 no.2:294-296 F '65.
(MIRA 18:4)

1. Institut organicheskoy fiziki AN SSSR i Institut khimicheskoy
fiziki AN SSSR.

ORDA, V.V.; YAGUPOL'SKIY, L.M.; BYSTROV, V.F.; STEPANYANTS, A.U.

Transmission of the induction effect of substituents SCF_3, $SOCF_3$, and SO_2CF_3 through a methylene group. Zhur. ob. khim. 35 no.9:1628-1636 S '65.   (MIRA 18:10)

1. Institut organicheskoy khimii AN UkrSSR i Institut khimicheskoy fiziki AN SSSR.

BRYSTROV, V.I.; KOSTYANOVSKIY, R.G.; PAN'SHIN, O.A.; STEPANYANTS, A.U.;
UZHAKOVA, O.A.

Three-membered rings. Part 1. Opt. i spektr. 19 no.2:
217-228 Ag '65.   (MIRA 18:8)

STEPANYANTS, E.N.

Characteristics of the method for testing plows used without a moldboard. Sel'khozmashina no.4:19-20 Ap '56.   (MLRA 9:7)

1.Severo-Kavkazskaya MIS.
                (Plows)

STEPANYANTS, N.N.,inzh.; VENCHENKOV, N.A.,inzh.

Testing the PN-4-35, PPN-6-35, and P-5-35M plows. Trakt. i sel'-
khozmash. no.1:26-28 Ja '59.   (MIRA 12:1)
                    (Plows--Testing)

STEPANYANTS, G.

Results of drilling an extra-deep well. Nov.neft.tekh.:Bur.no.4:2
'48.   (Oil well drilling)   (MLRA 9:4)

STEPANYANTS, O.

Strengthening and cementing an extra-deep well. Nov.neft.tekh.:Bur. no.4:2 '48.   (Oil well drilling)   (MLRA 9:4)

32198

S/535/61/000/139/007/009
E140/E435

13.2000 (1132)

AUTHOR: Stepan'yants, G.A., Engineer

TITLE: On the investigation of correlation of random quantities

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no.139. 1961.
            Voprosy avtomaticheskogo regulirovaniya
            dvizhushchikhsya ob"yektov. 129-133

TEXT: Because of the difficulties of instrumenting the
calculation of the correlation function the author introduces the
concept of parity coefficient, which can be substituted for the
correlation factor in many cases.   The basic notion is that of
the sign of deviation of random quantities from their mathematical
expectation.   This concept is represented by the coefficient
ξ_{XY}, equal to the probability that the sign of the product
$(x - x_{cp})(y - y_{cp})$ does not change and is given the + sign if the
probability that the sign of this product is +1 is greater than
0.5.   Thus

$$\xi_{XY} = P\{\text{sign}|(x - x_{cp})(y - y_{cp})| = +1\} -$$
$$- P\{\text{sign}|(x - x_{cp})(y - y_{cp})| = -1\}, \qquad (1)$$

Card 1/4

On the investigation of ...

It can be shown that this is equivalent to

$$\xi_{XY} = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \text{sign}\,[(x - x_{cp})(y - y_{cp})]\,f(x, y)\,dx\,dy.$$

(where cp = average).   The basic properties of the parity coefficient ξ_{XY} are the following:

1. $|\xi_{XY}| \leqslant 1$,

2. If the quantities $(x - x_{cp})$ and $(y - y_{cp})$ are related by any odd functional dependence, $\xi_{XY} = +1$ if the curve $(y - y_{cp}) = f(x - x_{cp})$ passes through the I and III quadrants and $\xi_{XY} = -1$ if the curve passes through the II and IV quadrants.

3. If the quantities $(x - x_{cp})$ and $(y - y_{cp})$ are related by an even functional dependence, $\xi_{XY} = 0$.

4. If the quantities X and Y are not related by a single valued function, if $\xi_{XY} = +1$ all points with coordinates $(x - x_{cp})$; $(y - y_{cp})$ fall in quadrants I and III.   If $\xi_{XY} = -1$, they fall in quadrants II and IV.

For independent X and Y the probability that a point with coordinate $(x - x_{cp})$; $(y - y_{cp})$ will appear in any given quadrant is identical, and therefore $\xi_{XY} = 0$ as in 3 above.

Card 2/4

On the investigation of ...

6. If $\beta_{XY} = 0$, the random quantities X and Y are uncorrelated and vice versa.
The parity coefficient and the correlation factor are related by a one-to-one relationship for a broad class of systems of random quantities. A simple interpretation of the parity coefficient is the probability that a point with coordinates $(x - x_{cp}); (y - y_{cp})$ will fall in quadrants I and III or II and IV.
The parity coefficient can be easily extended to random processes. For a stationary ergodic process the parity function is the quantity

$$\xi_x(\tau) = \lim_{T \to \infty} \frac{1}{2T} \int_{-T}^{T} \text{sign}\,[X_0(t)\,X_0(t+\tau)]\,dt,$$

where $X_0(t) = X(t) - X_{cp}(t)$.   The mutual parity function can also be defined

$$\xi_{xy}(\tau) = \lim_{T \to \infty} \frac{1}{2T} \int_{-T}^{T} \text{sign}\,[X_0(t)\,Y_0(t+\tau)]\,dt.$$

Card 3/4

On the investigation of ...

S/535/61/000/139/007/009
E140/E435

An instrument for calculating the parity coefficient is indicated in Fig.4.   Here Φy is a phase shifter, $\Pi 3$ is a logical element and the final block is an integrator.   There are 4 figures and 2 Soviet-bloc references.

Fig.4.

Card 4/4

SHELALYANTS, L. G.

Raschet laminarnogo pogranichnogo sloya na telakh vrashcheniya. Prikl. mat'em. i mekh., 6 (1942), 317-326.

So: Mathematics in the USSR, 1917-1947
         edited by Kurosh, A.G.,
         Markushevich, '.I.,
         Rashevskiy, P.K.
    Moscow-Leningrad, 1948

10(3,4)   PHASE I BOOK EXPLOITATION   SOV/3193

Leningrad. Politekhnicheskiy institut imeni M.I. Kalinin

Trudy, no. 198| Tekhnicheskaya gidromekhanika (Industrial Hydro-mechanics) Moscow, Mashgiz, 1958. 220 p. Errata slip inserted. 1,500 copies printed.

Resp. Ed.: V.S. Smirnov, Doctor of Technical Sciences, Professor; Ed. of this book: L.G. Loytsyanskiy, Doctor of Physical and Mathematical Sciences, Professor; Managing Ed. for Literature on the Design and Operation of Machinery (Leningrad Division, Mashgiz): F.I. Fetisov, Engineer; Tech. Ed.: R.G. Pol'skaya.

PURPOSE: This book is intended for engineers working in the field of machine construction.

COVERAGE: This collection of articles contains the results of original work in the field of theoretical and applied hydroaero-dynamics, completed in the aerodynamics laboratory of the LPI (Leningrad Polytechnic Institute) by members of the department of hydroaerodynamics and the department of theoretical mechanics. The book is divided into four parts. The first part contains studies of turbine steam-exhausts. The first article gives the results of a laboratory study on model-experiments on a test-stand and the general conclusions drawn therefrom. The second part contains articles on the theory of laminar and turbulent motion of viscous fluid. The articles treat the hydrodynamic theory of friction in bearings and suspensions, boundary layers and jets, the motion of air under the action of a corona conductor. The articles in the third part belong to the field of applied hydrodynamics. One of the articles is a radar antenna. The second article contains the results of aerodynamical analyses of fish-net models. The fourth part of the book contains the results of aero-dynamical experiments on establishing new methods of aero-dynamical measurements (friction forces on the surface of a streamlined body, pressure distributions in nonstationary flows). References accompany individual articles.

LOYTSYANSKIY, L.G.; STEPANYANTS, L.G.

Hydrodynamic theory of a suspended sphere. Trudy LPI   no.198:89-98
'58.   (MIRA 12:12)
                        (Lubrication and lubricants)
                        (Hydrodynamics)

STEPANYANTS, L.G.

Determining inertia terms in the hydrodynamic theory of lubrication.
Trudy LPI no.198:99-106 '58.   (MIRA 12:12)
            (Lubrication and lubricants) (Hydrodynamics)

S/563/61/000/217/008/012
D234/D308

AUTHOR: Stepanyants, L. G.

TITLE: Slow motion of a liquid near a deformed surface

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy.
              no. 217. 1961. Tekhnicheskaya gidromekhanika,
              117-126

TEXT: The author considers the problem of forces which the
liquid exerts on a plane surface having a deformation in the shape
of semi-cylindrical projection or depression (the problem is of
interest in hydrodynamical theory of lubrication). The assump-
tions are: (1) The liquid or gaseous medium is incompressible,
and its motion is laminar and isothermal; (2) the characteristic
Reynolds number is so small that inertial terms in the Navier-
Stokes equations can be neglected; (3) the height of the projec-
tion is so small that the distribution of longitudinal velocities

Card 1/2

Slow motion of a....

S/563/61/000/217/008/012
D234/D308

in the medium can be assumed to obey a linear law at sufficiently large distances from the point of deformation. Bipolar coordinates are used. The solution of the basic equation is obtained in terms of hyperbolic functions. Formulas for the forces acting on the deformed part of the surface are derived. The total additional force of resistance for the deformed part is found to be the same for both the case of projection and depression. There are 4 figures.

Card 2/2

S/563/61/000/217/010/012
D234/D308

AUTHORS: Dushin, N. V., and Stepanyants, L. G.

TITLE: Hydrodynamical design of a cylindrical suspension

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy.
                no. 217. 1961. Tekhnicheskaya gidromekhanika,
                133-139

TEXT: The authors describe a method of design based on re-
placing the holes used for introducing the liquid or gas into the
gap between the floating element and the casing by a system of
point sources with given flow rates. A suspension with cylindri-
cal floating element of finite length and a corresponding cylin-
drical casing is analyzed; it is assumed that the axis of the
floating element remains parallel to the axis of the casing. There
is 1 figure.

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L 63058-65   ENT(d)/ENT(m)/EPF(c)/T   Fr-4   IJP(c)   DJ
ACCESSION NR: AT5015704   UR/2563/65/000/248/0027/0034

AUTHOR: Stepanyants, L. G.; Zablotskiy, N. D.

TITLE: Some possible simplifications in the Reynolds equation for gas blanket lubrication

SOURCE: Leningrad, Politekhnicheskiy institut. Trudy, no. 248, 1965. Tekhnicheskaya gidrogazodinamika (Technical gas hydrodynamics), 27-34

TOPIC TAGS: gas blanket lubrication, calculation program, flat bearing, Reynolds equation

ABSTRACT: The authors analyze the previously known accurate solution to the stated Reynolds equation, substitute a new variable $S=ph$ to obtain the expression

$$hS\frac{dS}{dx} = \alpha S^2 + \beta S + C_1.$$ after a first

integration of the Reynolds equation (expressed in dimensionless magnitudes), and illustrate several attempts to linearize this expression. They first modify it by substituting a new function $\gamma = S^2$ to obtain

$$h\frac{d\psi}{dx} = 2\alpha\psi + 2\beta\sqrt{\psi} + 2C_1.$$

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ACCESSION NR: AT5015704

rewrite the latter expression to include the function f(x), related non-linearly to x, and approximate that function for the range $1 \leq \varphi \leq (1+\alpha)^2$ by the linear dependence

$$f(\psi) \simeq a_1 \psi + a_2.$$

Verification indicates that the suggested calculation program provides acceptable results at high or low H numbers. Its accuracy depends only on the value of α (inclination of the fixed plate in the stated model), the error increasing with an increase in α. Orig. art. has: 4 figures and 28 formulas.

ASSOCIATION: Leningradskiy politekhnicheskiy institut imeni M. I. Kalinina (Leningrad Polytechnic Institute)

SUBMITTED: 00   ENCL: 00   SUB CODE: ME, MA

NO REF SOV: 001   OTHER: 001

Card   2/2

L,63070-65   EPF(c)/EPF(n)-2/EWT(1)/EWG(m) —Pr-4/Ps-4/Pu-4 WW
ACCESSION NR: AT5015712   UR/2563/65/000/248/0088/0092

$3\frac{7}{B}+1$

AUTHOR: Stepanyants, L. G.

TITLE: Calculation of profile drag at high gas velocities and in the presence of heat transfer

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy, no. 248, 1965. Tekhnicheskaya gidrogazodinamika (Technical gas hydrodynamics), 88-92

TOPIC TAGS: profile drag, high velocity gas, heat transfer, Squire Young approach

ABSTRACT: The author generalized the general drag force formula of Squire and Young to escape in some measure its limitations in calculating profile drag (i.e. very low M of the onrushing flow). He obtained the formula

$$C_{x\rho} = 2\frac{\delta_x^{**}}{b} \cdot \frac{\rho_{ex}}{\rho_\infty} \left(\frac{U_x}{U_\infty}\right)^{\frac{5+H_x}{2} + \frac{k-1}{2}M_\infty^2 + \frac{\overline{Q}_w}{C_{x\rho}}}$$

to express profile drag in a gas flow involving heat transfer. Here, the magnitudes P_{ek} and U_k are assigned (P_e and U are density and velocity of gas at the outside edge of the boundary layer), while δ^{**}, H_k and $\overline{Q}_w$ are calculated from data obtained for the

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L 63070-65

ACCESSION NR: AT5015712

boundary layer on the surface of the profile (H_k is the ratio of displacement depth δ^* to momentum loss depth δ^{**} at the profile's trailing edge;

$$\overline{Q}_w = \frac{Q_w}{c_p \rho_\infty U_\infty T_\infty b}$$

where Q_w is total transferred heat, while ρ_∞, U_∞ and T_∞ are density, velocity and temperature in the wake; b is the profile chord and c_p is the heat capacity of the gas at constant pressure).   The profile drag factor C_{xp} can be calculated from the first formula above by successive approximation. Orig. art. has: 27 formulas.

ASSOCIATION: Leningradskiy politekhnicheskiy institut imeni M. I. Kalinina (Leningrad Polytechnic Institute)

SUBMITTED: 00   ENCL: 00   SUB CODE: ME, PR

NO REF SOV: 001   OTHER: 000

Card 2/2

SHEKHOVAL, L.Y.

Notes on the history of more elements in the avifauna of the arid zone of the Palaearctic. Nauch.dokl.vys.shkoly; biol.nauki no.4:39-42 '65. (MIRA 18:10)

1. Kaferat-Venosa i zoologii zcologii i darvinizma Moskovskogo gosudarstvennogo pedagogicheskogo instituta im. V.I.Lenina.

ACC NR: AT0026558   (A)   SOURCE CODE: UR/2776/66/000/046/0176/0185

AUTHORS: Ivanov, A. G.; Stepanyants, M. I.

ORG: none

TITLE: Development and investigation of heat-resistant steels alloyed with cobalt

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 46, 1966. Spetsial'nyye stali i splavy (Special steels and alloys), 176-185

TOPIC TAGS: alloy steel, high speed steel, steel, cobalt steel / R9K25 steel, R9K30 steel

ABSTRACT: The effect of repeated quenchings and addition of cobalt, chromium, vanadium, and tungsten to steels R9K25 and R9K30 on the heat-resistance and mechanical properties of the latter was investigated. A total of six specimens was investigated. The chemical composition of the specimens is tabulated, and the experimental results are presented in graphs and tables (see Fig. 1). It was found that repeated annealing of the specimens at 600C for a period of one hour increased their hardness from 35 to 67--70 HRC. The impact viscosity and workability of the steels may be further improved by additional annealing at 750C for 2 hours, followed by quenching in water. The secondary and hot hardnesses of steels containing 9% and 18% W,
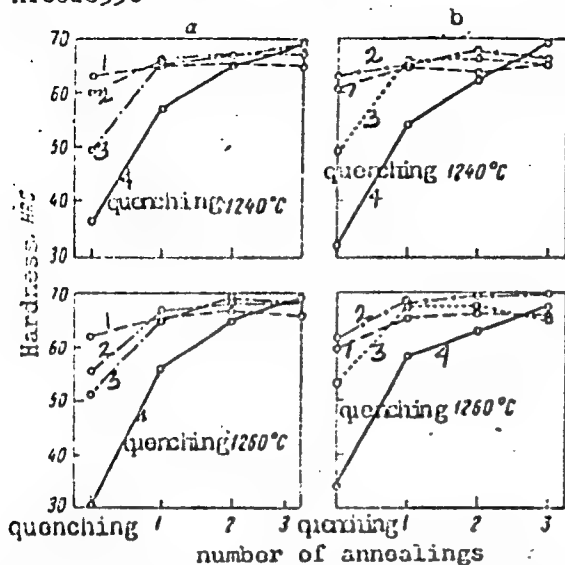
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L 07954-67

ACC NR: AT6026550

Fig. 1. Effect of the number of annealings on the hardness of quenched steel as a function of: a - concentration of cobalt for annealing at 550C; 1 - smelting temperature 2643C; 2 - 2645C; 3 - 2646C; 4 - 2647C; and b - concentration of chromium for annealing at 600C; 1 - smelting temperature 2648C; 2 - 2641C; 3 - 2649C; 4 - 2647C.

respectively, were found to be practically identical. Orig. art. has: 4 tables and 7 graphs.

SUB CODE: 11/   SUBM DATE: none

Card 2/

133-1-2/18

AUTHORS: Troyanker, S. U. and Stepanyants, N. S.

TITLE: A New Method of Making Pressure Sleeves. (Novyy sposob izgotovleniya napornykh rukavov).

PERIODICAL: Kauchuk i Rezina, 1969, Nr. 1. pp. 30 - 31. (USSR).

ABSTRACT: The big consumption of fabric and binding presents certain drawbacks in present day methods of manufacture; further disadvantages are the flaws in the sleeves due to faulty seams, indentations etc. In the new method of making pressure sleeves the sprayed chamber is lubricated internally with a solution of soap or glycerine, and subjected to pre-curing for ten minutes in a vessel or a continuous vulcanisator and placed on the cylinder. The surface of the chamber is covered with glue to increase a d h e s i o n. The chamber is then pre-cured to form a protective rubber layer. The second method of making these sleeves only varies in the chamber not being pre-cured before lubrication. Advantages of the new method comprise a 100% increase in output, in a saving of binding fabric, improvement of the quality of the sleeves a s no flaws, notches etc. occur, and elimination of powdery material (talcum). Pressure sleeves up to lengths of 2.5 m were made by this new

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A New Method of Making Pressure Sleeves.

method, and it was shown that: (1) the protective rubber layer can be substituted with rubber chambers of not less than 1 mm, having an internal diameter not exceeding 40 mm, (2) the spray chambers have to be protected on the moulds to prevent deformation and unequal expansion, (3) talcum can be used on the inner surface of the chamber and chalk, zinc stearate, or lithopone. The pre-curing of the sprayed chamber is carried out by introducing steam into the vessel during ten - fifteen minutes up to a pressure of 3 atms. The mixture 3408-1a is vulcanised at a pressure of 3 atms for five minutes, mixtures 4691-27 for ten minutes. Steam is discharged until a pressure of 0 atms is reached (for ten - fifteen minutes). It is recommended to use for these chambers 4691-1a (based on "Nairit") and glue   4-H and 109 in a concentration of 1:4 to 1:6. The protective rubber layer

Card 2/2   is deposited with the aid of air which has been heated under pressure.

ASSOCIATION: Moscow Plant "Rubber". (Moskovskiy zavod "Kauchuk").

AVAILABLE: Library of Congress.

STEFANYANTS, S.A., inzh.; ISHCHUK, Yu I., inzh.

New consistent lubricant for conveyer bridges; "OM" lubricant VTU TSMZ-5 No. 01-60. Nauch.zap.Ukrniiproekta no.4:173-174 '61.
(MIRA 15:1)

(Lubrication and lubricants)

ISHCHUK, Yu.L.; STEPANYANTS, S.A.; ISHCHUK, L.P.

Lubricating grease for conveying and dumping bridges (the
lubricant "OM" VTU TSMZ-5 No.01-60). Trudy BONMZ no.1:50-53
'63.   (MIRA 16:6)

(Lubrication and lubricants)